

The Math Paper is an exploration which will address one or more of the following topics: Algebra, Functions, Trigonometry, Vectors, Statistics and Probability, or Calculus. The student is encouraged to address applications, technology, moral, social and ethical implications, and the international dimension.

The specific purposes of the exploration are to:

- \* develop students' personal insight into the nature of mathematics and to develop their ability to ask their own questions about mathematics
- \* provide opportunities for students to complete a piece of mathematical work over an extended period of time
- \* enable students to experience the satisfaction of applying mathematical processes independently
- \* provide students with the opportunity to experience for themselves the beauty, power and usefulness of mathematics
- \* encourage students, where appropriate, to discover, use and appreciate the power of technology as a mathematical tool
- \* enable students to develop the qualities of patience and persistence, and to reflect on the significance of their work
- \* provide opportunities for students to show, with confidence, how they have developed mathematically.

The Internal Assessment is a short report (6 - 12 pages including diagrams and graphs, but excluding the bibliography) written by the student based on a topic chosen by him or her. The report should include a detailed bibliography, and sources need to be referenced in line with the IB academic honesty policy. Direct quotes must be acknowledged. The emphasis is on math communication (including formulae, diagrams, graphs, and so on) with accompanying commentary, good math writing and thoughtful reflection. This exploration is intended to provide students with opportunities to increase their understanding of math concepts and processes, and to develop a wider appreciation of mathematics.

This paper is worth 20% of your IB mark, and the test that you will take early May is worth 80%.